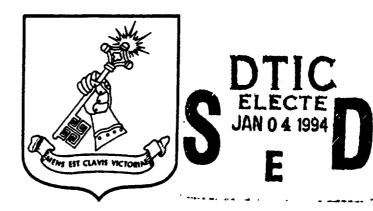


Air Occupation:
A Viable Concept for Campaign Planning?

A Monograph
by
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Infantry



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ABSTRACT

AIR OCCUPATION: A VIABLE CONCEPT FOR CAMPAIGN PLANNING? BY MAJOR TIMOTHY D. LIVSEY, 48 PAGES.

This monograph investigates how the Air Force concept of air occupation applies to operational campaign planning. The post Cold War era and a New World Order poses new challenges for operational planners. They must meet the changing geopolitical environment with new doctrines and concepts that apply military means in a mono polar world with reduced force structures. Air occupation is a new concept designed for the post Cold War era.

The first section puts air occupation in perspective by expanding on Clausewitz's paradigm of limited war. Then air occupation is defined and explored. Air occupation is a new Air Force concept for joint operations. It is the asymmetrical application of joint aerospace technology to exploit the advantages of operating in the air dimension. Technologically intensive, air occupation uses joint airpower asymmetrically to achieve a relative position of advantage over a designated region. Established in space and time, this asymmetry generates a position of advantage to achieve operational and strategic effects.

The British Royal Air Force (RAF) used a similar application of airpower, termed air control, in the 1920's and 1930's. The RAF used air control operations in Mesopotamia (now Iraq) to successfully control their British colonial possession.

Air occupation is a new concept but is supported in current joint campaign planning doctrine. The use of theater geometry provides for using airpower within designated portions of the theater of war. Additionally, the changing role of interdiction operations adds credibility to air occupation. Today interdiction operations, and the designated commander responsible for interdiction, can be the main effort within a theater of war.

This monograph concludes that air occupation is a viable operational concept for campaign planning in a limited war context. It is currently being used in Iraq and having a relative degree of operational and strategic effects.

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INTRODUCTION

On 15 December 1992, Col John A. Warden, USAF, the Director of the Air Staff College, presented a briefing to the School of Advanced Military Studies on Operation INSTANT THUNDER: The Strategic Air Campaign for Operation DESERT STORM. Col Warden's presentation discussed the thirty-eight day coalition air operation that preceded the ground operation. During his conclusion, Col Warden emphasized the importance of offensive air operations, and that airpower prevailed over ground forces. Moreover, he stated that INSTANT THUNDER validated the concept of "air occupation."

Air occupation is visionary and worth exploring. As a concept, it is not yet official doctrine, but as Col Warden applied it in the plan for Operation INSTANT THUNDER, it promises value for joint and combined campaign planning. When Col Warden and his Pentagon team arrived in Saudi Arabia to help with air planning, General Schwartzkopf was skeptical. The theater commander, familiar with Col Warden's book The Air Campaign: Planning for Combat, considered Col Warden an airpower enthusiast who believed airpower could win any war. The general later remarked that Col Warden proved to be a flexible thinker who understood the full dimension of the employment of airpower.

The concept of air occupation coincides with new and evolving Air Force doctrine. This doctrine captures new

thinking about the employment of joint airpower. In addition to supporting the ground forces by dominating the skies overhead, this doctrine says that joint airpower can conduct semi-independent operations that contribute directly to the success of the joint campaign.

Like most new concepts, air occupation is not universally accepted by the Air Force nor included in AFM 1-1, Basic Aerospace Doctrine of the United States Air Force. As with any new concept, air occupation will take time to get established and appear in Air Force publications. Therefore, an examination of occupation can only explore its current expression and potential application. Moreover, trying to address the full-range of service and joint doctrinal implications is beyond the scope of this monograph. This monograph defines, clarifies and examines this new concept. defining air occupation and using both past contemporary historical frame of references, operational planners can understand it, accept or reject it, and if required, use it in future campaign planning.

LIMITED WAR

The direct use of large conventional military forces is less likely today as a result of changing geopolitics. Analysis of the political and military

trends after the Cold War raises questions about the likelihood of using large conventional forces. The 1993 U.S. National Security Strategy, evolving service doctrine, senior military leaders, and international affairs experts prefer policies, conditions, and restraints that limit the military ways and means used in war. As the prevailing political, moral, and social issues reflect the nature of economic or political regional conflict in the future, most conflicts will not threaten the existence of the states involved. Accordingly, the application of military means to achieve national security goals will become more limited.

These political and military trends in the late twentieth century reflect Clausewitz's paradigm of limited war. Although Clausewitz acknowledged absolute war as the ideal, he classified all actual wars as limited. The basic limitations of war are especially true for democratic nation states dependent upon the stability of a global economy. The trend is for first world nations to wage limited wars that will only threaten potential enemies policies, not their sovereignty or existence. Since, the object of war as a servant of policy is to impose your will on the enemy—and compel your enemy to do your will—the remarkable triad imposes restraints on national

security decision makers. Only a limited application of military means are morally and politically acceptable in democratic societies. However, the threat of war can achieve political objectives when the enemy lacks the military-government-people consensus to accept the cost of war or garner the support to fight against the ways and means being used against them. The use of military force, after all, is a policy tool that must have the will to use it.

Clausewitz defined war as a branch of political theory. In On War Clausewitz states that all wars are governed by policy. Accordingly, the history of warfare shows a transformation in the art of war as the nature of political policies changed. Since the nature of political policies determines the nature of the war, these same policies shape the strategy employed by the military. This includes placing limitations on the use of military means to achieve the political aims.

The 1993 National Security Strategy of the United States reflects a political policy indicative of limited wars. This affects how the U.S. and its allies use the elements of their national power to protect their national and regional interests. Although the basic elements of national power are constant, their use has changed dramatically. The chance of direct use

of military power as the decisive instrument of national power has diminished. Today, in a mono-polar world, the U.S. is the dominant military power. However, U.S. economic and political power, exerted through diplomatic means, are now more useful to pursue U.S. security interests and objectives. Today more than ever, the military often serves as a buttress for the other elements of national power.

This trend toward a more limited use of military power is understood by senior leaders in the military. Recently, General Colin L. Powell, the Chairman of the Joint Chiefs of Staff, put Clausewitz's theory of limited war in context for today. In his article "U.S. Forces: Challenges Ahead," he agrees with Clausewitz by saying that all wars are limited. says absolute war has never occurred and will not occur given the world today. General Powell believes that wars will become even more limited in the future. They will be limited by three means: the territory on which they are fought, the means used to wage war, and the political objectives for which they are fought. He concludes by stating that the recent war in the Persian Gulf was a limited war. If it were not, the U.S. and the coalition would occupy Baghdad today. 11

Clausewitz admonishes political and military leaders to consider the moral dimension in war. In

addition to the primary role of politics determining the military strategy used in war, the nature of the societies involved influences the type of war. Historically, each age has its own type of war, its own limiting conditions, and its own preconceptions that range along the continuum from absolute to limited war. The current ideas, emotions, and conditions within the societies and of the people from the nations in conflict will dictate the moral nature of the war. 12 The new National Security Strategy reflects a changing U.S. society that places high value on the moral dimension of war. 13 Accordingly, U.S. service doctrine not only describes how the services apply military means, but these doctrines also reflect American values and the desire to limit the use of military force.

The effect of the political and social trends on policy toward using limited military power is reflected in the changing Army doctrine. Army doctrine describes evolving missions that illustrate the trend toward more limited wars. The Army doctrine in FM 100-5, Operations, now includes a chapter and interrelated discussions on operations other than war. These operations are a departure from the traditional focus on warfighting operations in FM 100-5. Although operations other than war are not new to the military,

they are now part of Army keystone doctrine for the first time. They include peacekeeping, nation assistance, civil disturbances, anti-drug operations disaster relief and others. These new missions and their inclusion in central Army doctrine, reflect the trends for the limited use of military means to meet changing political aims.

Contemporary author Harry Summers alludes to this new awareness of the moral dimension of war among the American people. He says that the success of the air and ground operations in the Persian Gulf War created a precedent that the American people will remember for a long time, especially after Vietnam. He concludes that Americans will not tolerate high casualties when U.S. forces are committed to war. As a result, the political decision to put U.S. ground combat forces in harms way is now harder to reach because it resonates deeper within the American society. When U.S. decision makers commit U.S. ground forces, their decision sends a clear message to American society and the world. This political decision is an option but only with enough popular support and sufficient military means to meet the political aims. 15 Air occupation provides U.S. political leaders and operational planners a method to apply military means that limits the number of ground forces put in harm's way.

Achieving strategic aims with minimal risk and cost politically, morally, and militarily dominates political decisions involving the use of military force. Contemporary author, Admiral Sir James Eberle of the Royal Institute of International Affairs, states these points in his article, "The End of NATO." cites the beginning, evolution, and reductions of nuclear weapons as historical evidence for his claim. The admiral believes that large conventional ground forces will suffer the same fate as the declining nuclear forces. He like Jean de Bloch the 19th century author of The Future of War, believes statesmen will regard the potential harm to their modern economies by using large conventional forces as too great in relation to the potential benefits . These political leaders will weigh the high dollar cost of large forces with their potential massive destruction to global economies as politically unacceptable. Citing the Persian Gulf War, Admiral Eberle judges the use of the military not as an instrument used for conquest but only as a way of maintaining the status quo judgment that limited direct military action falls to resolve conflict is supported by contemporary historian and correspondent Max Hastings, coauthor of The Battle for Falklands, who said, "As in so many limited wars the cause of the dispute returned precisely to the

status quo, wholly unresolved." Both Eberle and Hastings conclude that contemporary political decisions with limited ends that use limited military force result in outcomes that do not change the original causes of the conflict. Eberle believes the cost benefit analysis missed the real costs in the Persian Gulf War because the strategic objectives were insufficient, although politically rational.

In his assessment of the Persian Gulf War. Admiral Eberle cites the true costs as not only the high dollar value associated with military force, but also as the environmental costs associated with such things as oil spillage and the crippled refining capability. He believes the cost of the conflict were not worth the limited benefits. He argues that the war only changed the nature of the problem in Iraq into a protracted political limited war. Saddam Hussein remains in power, oppression and human rights violations still occur, and Iraq selectively complies with the United Nations resolutions. Additionally, Admiral Eberle questions whether the Middle East is more stable as a result of the political policies and the resulting limited military strategy used during the Persian Gulf War 18

The concept of air occupation has potential application to limited wars today that could alter the

cost benefit analysis. General Powell lists "the territory on which wars are waged" as one of todays' limitations. 19 Air occupation provides a readily available means to apply military force over a territory to compel the enemy to do our will without the political and moral costs of using large ground forces. Political leaders, societies, and military forces can expect limits placed on their use of military means to conduct war. The political and economic factors, such as those argued by Eberle, militate against the decision to use large conventional forces in regional conflicts. Political leaders and operational planners must deal with this reality. Air occupation is a limited asymmetrical application of military means that may answer Admiral Eberle's concerns about future limited wars.

AIR OCCUPATION -- THE CONCEPT

The superiority of warfighting technology gives U.S. forces an edge during any type of war. Joint Chiefs of Staff Publication 1, <u>Joint Warfare of the U.S. Armed Forces</u>, describes this technological edge as the asymmetrical application of military force. 20 Conceptually, air occupation exploits U.S. advanced aerospace technology because there are fewer constraints to operations within the air dimension. 21 Asymmetry

provides leverage that permits U.S. and NATO their force reductions, but still provides a method to apply military force effectively within the limited war paradigm. Air occupation uses asymmetry by integrating three different types of aerospace technology that make air occupation a versatile joint concept for the limited application of force.

Air to ground, sea to air, and other forms of the asymmetrical application of force generate synergistic effects. The strategic and operational leaders who understand the potential of asymmetrical operations can design military plans with greater effects but fewer resources. Gary Guertner, the Director of Research at the Strategic Studies Institute, U.S. Army War College, provides an example of the need for this new type of thinking. In "NATO Strategy in a New World Order," Guertner recommends that NATO adapt its force structure to accommodate the post Cold War paradigm by capitalizing on the technological advantage of asymmetry. 12

MATO decision makers to use in assessing their ability to achieve strategic objectives. One measure directly addresses the asymmetry of aerospace technology. It includes lethality (lethal munitions), deep strike, and high accuracy. This measure shows how a technology-based capability might offset the smaller ground force

structures within NATO. Guertner stresses as a second measure the need for cost effective combat capability based on a mix of high to mid-level technology in weapons platforms and munitions. This measure of effectiveness adds to the need for technological capabilities and the need for new methods of employment of airpower to realize the asymmetrical advantages of current and future aerospace technology. 23 With decreased U.S. and NATO ground force structures, NATO needs to look for solutions offered by greater mobility of their air forces. This use of airpower permits rapid response to changing and diverse threats while avoiding the political indecisiveness associated with deploying ground forces to troubled regions.

Air occupation is an employment concept suited to Guertner's two measures of effectiveness. It exploits and dominates the air dimension over a specific area using advanced aerospace technology for limited periods in time and space. Air occupation integrates three essential components: advanced aerospace technology, the use and temporal domination of the air dimension, and air occupation as a versatile joint operational concept. 24

The asymmetric advantage of air occupation is its capability to use direct or indirect force against operational or strategic centers of gravity. The use, or threat of use, of force by dominating a specific volume

of air and ground for a specified time, allows aerospace forces to operate and to generate a relative position of advantage. From these positions of advantage, the threat, or direct use of force becomes leverage to impose one's will on the enemy. 25

Through integration of advanced technology, a force with advanced aerospace technology can dominate, control, and in effect, occupy the air dimension over a certain region. To dominate the air dimension, joint commanders employ three types of aerospace technology within the air dimension as dictated by the situation. The first is surveillance and monitoring technology consisting of space-borne and fixed-wing aviation assets. National space assets and fixed wing aviation assets conduct continuous detection, surveillance, monitoring, and collection of information over a specified region. These assets include all source intelligence collection and electronic warfare that operate in the air dimension. They are the eyes and ears that operate in the air dimension. 26

The second technology component is direct action technology. This includes multi-service fixed and rotary-wing aviation platforms and unmanned missile technology. Direct action technology can strike or threaten to strike surface targets from the air to achieve strategic or operational effects. Direct action

technology uses the improved capabilities of precision guided munitions to get direct not area effects. 27 Since the Air Force first used smart munitions in late 1967 against Hanoi's bridges over the Red River to achieve surgical strikes, the capabilities of precision guided munitions have improved significantly. When speaking about precision guided munitions, General Michael Dugan, the former Chief of Staff of the Air Force said, "the technology finally caught up with our doctrine." The increasing effects of precision guided munitions was a major factor in the success of Operation INSTANT THUNDER and is a key element of air occupation.

The capabilities of precision guided munitions have grown significantly since World War II. The Air Force expresses this capability as the circular error probability (CEP). CEP is the radial distance from a point on the ground in which 50% of all bombs dropped will land. Historical trends since World War II through DESERT STORM illustrate the effect of precision guided munitions against surface targets. 25

Conflict	CEP	Quantity
WW II	3300	9070
Korea	400	176
Desert Storm (F-16)	200	30
Desert Storm (F-117)	10	1

The pinpoint effects of precision guided munitions affects the political and moral dimension of war. accuracy of precision guided munitions permits attacking targets without the collateral destruction of nonmilitary targets that produces civilian casualties. Identifying, isolating, and striking only those targets related to operational or strategic centers of gravity reduces the moral problems associated with the undesired impact of the war on the population. Precision guided munitions have changed the nature of air operations. Historically, strategic bombing with inaccurate bombs only galvanized civilian populations who suffered collateral effects. Today, precision guided weapons can protect the population from collateral effects and focus on the political and military leadership and their resources. 30

The third technological component provides the command and control (C2) architecture to synchronize aerospace systems operating within the air dimension. Space, airborne, and ground based communications and information processing centers provide prompt reliable information between leaders and operators. This enhances synchronization of aerospace technology within the air dimension. This C2 architecture enables the different systems to communicate and coordinate within the air dimension. It

Moreover, it permits the direct action technology to remain safe and uncommitted until it is needed.

Air occupation uses the asymmetry created by advance aerospace technology to exploit the medium of air in time and space. Systems operating within the air dimension encounter less natural friction. Since the air medium is easier to move and communicate through, there is less friction when compared to forces operating on the surface. The relative lack of friction allows aerospace systems greater freedom of movement and greater operational and strategic reach. The unmatched superiority of U.S. and NATO airpower affords an offensive aerospace force the advantage of choosing the time and place to apply the effects of their direct action technology. Preparing to conduct or actually conducting air occupation over a specified territory creates a continuous threat from the air. Even when not applied, this threat from the air may achieve strategic effects if it affects political decision makers and moral support of the population.

The Air Force developed air occupation as a joint operational concept. As General Powell recently stated, the services have air components, not separate Air Forces. These components are complementary capabilities available to support joint operations. Since all services have assets that operate within the

air dimension, joint commanders can integrate and coordinate these assets to achieve operational level effects.

The crisis situation in the Philippines in 1989 demonstrated the use of airpower to achieve operational When the palace of President Aquino was attacked by rebel air and ground forces, the Philippine U.S. government requested military intervention. Although the request did not specify the type of intervention, General Powell, recommended a limited application of force to stop the rebel attacks. The rebel center of gravity was their combined use of ground and air attacks against the palace. General Powell used airpower from near-by Clark Air Force Base to deny the rebels the use of their airpower. U.S. aircraft scrambled and moved to the airfield that was the source of the rebel airpower. By flying low, the U.S. Air Force prevented the captured rebel aircraft from taking off and supporting the rebel ground forces attempting to over-run the palace. This asymmetrical application of limited military force had an operational effect on the rebels by denying them the ability to combine the effects of air and ground operations to achieve their political aims.

Air occupation is doctrinally supported by the joint warfighting concepts expressed in JCS PUB 1.

Technologically intensive, it creates asymmetry by

integrating joint aerospace technology within the air dimension to maintain leverage over a specified region. Political leverage can be held over a designated area by maintaining an asymmetrical advantage on enemy ground and air assets or political decision makers. By exploiting the asymmetrical advantages of aerospace technology, air occupation avoids the political and moral ramifications attendant in committing ground combat forces. With the current ground force structure reductions within the U.S. and NATO, air occupation is a valuable addition as an operational concept for the application of military means to achieve limited strategic objectives.

HISTORICAL PERSPECTIVE

ROYAL AIR FORCE "AIR CONTROL" OPERATIONS IN MESOPOTAMIA

Today as the U.S., the world's only military super power, is reducing its military, the potential requirements for U.S. military force are increasing. General Powell claims to be the only Chairman to testify before Congress on reductions in the military force structure while deploying U.S. forces to war. The strategic situation in Britain between the World Wars is similar to the situation facing the U.S. in the post Cold War era. The British use of airpower during the period between the wars is instructive relative to today.

The British expanded their colonial empire during

and after World War I, especially in the Ottoman Empire. However, the post war economy in Britain required political decisions to drastically reduce the size of the British Army. Since the British empire had expanded, either more ground troops were required to police the colonies, or some other method of using military force was needed.

During the period between the world wars, European powers made extensive use of air assets by European powers to expand and control their colonial empires in Africa and the Middle East. The British Royal Air Force (RAF) employed airpower to maintain order in the British colonies in the Middle East between the two World Wars. During this period of British history, military operations in the British colonies were called "imperial policing." One method used by the British to conduct imperial policing was the RAF inspired concept of "air control."

This concept of air control did not come easily.

After World War I, the RAF was trying to preserve its position earned during the war. The RAF needed to prove its value in policing the colonial empire or risk reductions or termination. It eventually got its chance to show its operational effectiveness in the British colonies in Africa and the Middle East. However, the RAF initially remained operationally subordinate to the Army

in the Sudan, Egypt, Somaliland and other parts of the Middle East after World War I. The British political and military establishment believed the RAF was a supporting element for the British Army and Navy surface forces and not capable of independent operations. 39

In February of 1920 Winston Churchill received notification from the British General Staff that the Army could control Mesopotamia due to limited Parliamentary funding for ground forces. Churchill's options were simple; he could give up the colonial possession or could try a more economical method of colonial policing. Air Marshall Hugh Trenchard, the Chief of the British Air Staff, thought his chance had come to validate air control in the British colonies. However, due to infighting between the services, the RAF did not get control of operations in Mesopotamia. Army, even at reduced strengths, retained control of RAF assets and operations. 40

A rebellion in Mesopotamia in the 1920's marked the beginning of the end of the Army's control of British military forces in Mesopotamia. At the end of the rebellion, Winston Churchill convened a conference in Cairo to decide the fate of Mesopotamia. Sir Percy Cox, the High Commissioner in Baghdad, and General Sir Aylmer Haldane, the commander of the military forces in Baghdad, opposed turning Mesopotamia over to the RAF; even though

the British Army, operating at post war reduced strengths, was unable to maintain control in Mesopotamia as shown by the rebellion. Winston Churchill decided to use another operational concept and gave the RAF a chance to test air control in a portion of Mesopotamia called Kurdistan. Churchill's decision was largely financial. If air control worked in Mesopotamia, it would cost the British government half of what it cost to maintain the ground forces. 41

After eleven months, the RAF concept of air control passed the test in Kurdistan and gained an ally in Sir Aylmer Haldane. Haldane reported to Churchill that the test in Kurdistan validated the RAF concept of air control. In October, 1922 the RAF got complete control of military operations in Mesopotamia, despite the reservations of the British Army. 42

The RAF air control operations in Mesopotamia were joint operations conducted with airpower and small armored car squadrons. The RAF created and trained the small armored formations that became part of the RAF force structure. They defended RAF air bases in Mesopotamia and conducted limited operations in concert with the air arm of the RAF. The ground forces operated among the nomads and along the poorly defined border with Saudi Arabia. Although they were not fighters in the traditional sense, they represented the British colonial

presence. Both the small armored formations and the air elements of the RAF had an asymmetrical advantage over the population with their relative advanced technology. Although RAF operations were a joint application of air and ground forces, operational and strategic success was due primarily to RAF airpower.

The air arm of the RAF conducted many different types of operations as part of the doctrine of air control. They conducted psychological operations by dropping propaganda leaflets and operated over extended ranges in Mesopotamia beyond the range of the small armored squadrons. They were successful at rapidly quelling internal tribal and clan wars to maintain peace in Mesopotamia. The RAF could rapidly move and intervene between rival forces before a conflict could erupt. They also served as a deterrent force by their presence and after demonstrating their firepower. This kept the rival forces separated until a political solution was achieved. 44

Operations by the air arm also contributed to the political solutions to problems in Mesopotamia. If a situation arose requiring political mediation, the RAF would rapidly transport a British political liaison officer to the scene to arbitrate between the warring factions. The arbitrator and the presence of the RAF aircraft set a tone conducive to British political

negotiations in Mesopotamia.

Although Churchill did not think the RAF was capable of protecting Mesopotamia from invasion, the RAF did. Churchill's initial guidance to the RAF did not include protecting the country from external threats like Russia or Turkey. The air arm of the RAF did protect Mesopotamia from border incursions, especially from Turkey. 46

The RAF did not like using direct action in Mesopotamia, but used it occasionally against recalcitrant tribes. The British bombed the tribes and clans to force them to pay taxes and conform to British desires. However, the objective related to the center of gravity was to disrupt the normal lives of the population; therefore, indiscriminate destruction and killing was minimal. When used, direct action by the RAF targeted village resources, not the people. RAF airplanes provided coercive leverage over the population who disliked having their lives disrupted. 47 deliberate efforts to limit destruction, there was a moral outcry by the British public against using air control operations to quell unrest in Mesopotamia.

Political agitation against the RAF methods of air control came from within and outside of Britain. The British Labor Party and the League of Nations continuously exerted pressure on the RAF to limit

civilian casualties. Many politicians felt that using airpower in the region was immoral and unsporting, especially since the population was outmatched by airpower technology. Moreover, many felt the pilots could dissociate themselves from the brutality and devastating effects of airpower. Despite the political clamor over air control, the RAF seldom used direct attacks and when they did, few civilian casualties resulted. 48

A major factor that reduced civilian casualties was the bombing accuracy achieved by the RAF pilots. Unlike bombing conditions in Europe, the RAF could drop bombs from tens or hundreds of feet, not thousands. This relative precision accuracy enabled the RAF to select and target key resources that if destroyed would disrupt the lives of the villages and avoid collateral killing.

Although there was a continuous threat from small arms weapons, RAF airpower operated with relative impunity over the skies of Mesopotamia. Pilot losses were minimal during the extended RAF operations. Only fourteen pilots were killed and eighty wounded from 1922 to 1932. To prevent pilot deaths, the British offered rewards for the release of pilots and also circulated harsh threats for any mistreatment of downed pilots. 49

ANALYSIS OF RAF OPERATIONS IN MESOPOTAMIA

A few strategic and economic conditions facing Britain and other European powers after World War I resemble those confronting the U.S. and NATO today. To compensate for these conditions, the British adapted an operational concept for using their advanced aerospace technology to support their military strategy. The use of this concept helped them achieve their limited political and military aims and allowed for smaller ground force structures. The concept of air control was a limited use of military force relying almost exclusively on the use of airpower. The advantages of asymmetry enabled the RAF to politically and militarily achieve their strategic objectives in Mesopotamia.

The British air control operations in Mesopotamia illustrate how limited joint operations applied asymmetrically can achieve relative superiority through the air at the decisive time and place. This permitted British ground elements, both military and political, to operate in Mesopotamia under an umbrella of protection from the air. The direct and indirect use of aerospace technology from secure positions in the air was a buttress for political and military operations on the ground.

The RAF controlled Mesopotamia due to asymmetrical

advantages of airpower over the terrain and the people. Air control worked because the terrain offered little protection to the unsophisticated population that succumbed to the invincibility of airpower. Air control was also successful in mountainous terrain, especially in Kurdistan. In effect, the RAF controlled the population and its leadership by coercion or suasion. This worked because the direct or indirect use of force against the resources affected the daily lives of the population—the center of gravity. Moreover, the British air control operations reduced collateral damage and resulted in few civilian deaths. 50

The accuracy of RAF bombing targeted facilities or resources important to the people without injuring or killing the people. This asymmetrical application of limited force against limited targets supported the British political aims and reduced the moral impact of the use of airpower. The accuracy of the RAF bombing in Mesopotamia is similar to the effects that precision guided munitions might produce for U.S. and NATO forces. Today precision guided munitions can apply limited means effectively and efficiently in some situations to reduce the political and moral dilemma of causing massive collateral damage.

The British could not occupy all of Mesopotamia with ground forces to maintain control, but they wanted to

maintain the political status quo which was threatened. Air control achieved the same effect as ground occupation by limited use of air and ground military means to dominate an area in space and time. Air control was a defensive military strategy. It enabled the British to maintain a colonial peace in Mesopotamia without the cost of committing large ground forces. The British did not want to conquer Mesopotamia, just control the region and impose their political will to maintain the status quo.

The British colonial policy of imperial policing shares some characteristics to the political goals stated in the 1993 National Security Strategy. Today the United States and its allies seek to maintain regional stability through a regional defensive strategy. 11 With reduced force levels, NATO and the U.S. need similar operational concepts to meet their power commitments like the British faced in their colonies after World War I. U.S. and NATO forces must find new politically and economically acceptable ways of applying military power to achieve their political objectives. The British adapted their doctrine to achieve the desired political effects using asymmetry within the air dimension. Today neither NATO nor the U.S. can sustain large ground forces to occupy a region for an extended period of time. As the British discovered, small ground forces and political activity complemented by offensive air operations is a militarily

viable alternative to achieving limited strategic objectives.

JOINT DOCTRINE

Joint doctrine can profitably employ the concept of air occupation. Additionally, the concept is consistent with the view that joint airpower can conduct semi-independent operations such as air occupation within portions of a theater of war to achieve significant objectives of a campaign. Joint campaign planning doctrine (specifically theater area organization) thus allows for air occupation as an appropriate operational concept. Moreover, the changing role of interdiction because of improving aerospace technology, suggests many uses for air occupation during campaign planning. Air occupation is a way to apply limited military means to achieve strategic objectives with minimal risk.

During their campaign planning, operational commanders analyze the ends, ways, and means available to them in pursuit of their strategic objectives and they subject their operational concepts to a risk-benefit analysis before organizing forces, establishing levels of control, and allocating resources. Their initial estimate of the situation is part of the theater strategy that becomes the foundation for the theater campaign

plans.⁵² The theater campaign plans provide the guidance that describes the ways military means are employed to achieve the strategic objectives. Given the means available, theater campaign plans specify how to defeat the enemy and the method to defeat him with the least cost in lives and material.⁵³

The combatant commander uses theater geometry when the war breaks out to divide among his subordinate commanders his area of responsibility. This partition helps establish both theater organization and the command and control structure to support theater campaign plans. The combatant commander, with the approval of the National Command Authority and the Joint Chiefs of Staff, designates a theater of war. The geographic designation of the theater of war is based on the campaign design, complexity of the campaign, and the degree of control desired by the commander. 54 Depending on the size of the theater of war, the theater of war commander can geographically divide his theater of war into smaller regions. A large theater of war may be divided into smaller theaters of operations (TO). The commander considers establishing theaters of operations (TOs) when there are multiple threats or other geographic considerations. Theaters of operations can include separate land, sea, and air areas. 55

Each theater of operation is commanded by a Joint

Force Commander (JFC) that can represent any service. The JFC's theater of operations is large enough to conduct, support, and administer combat operations. The JFCs develop supporting campaign plans to support the larger the theater of war campaign plan. The theater campaign plan with the supporting campaign plans from the JFCs represent a family of plans to accomplish the strategic objectives. ST

Another way of using theater geometry within a theater of war is to designate areas of operations (AOs). Areas of operations are similar to theaters of operations and may be designated within the larger theater of war or within the smaller theater of operation. Areas of operations are smaller and indicate joint operations conducted by a predominant single service component. These areas include Joint Operations Area (JOA), Joint Special Operations Area (JOSA), Joint Rear Area (JRA), or component Geographic Areas of Prime Responsibility (GAPRs). Although Armed Forces Staff College PUB 2 describes each of the above, it does not specifically discuss air operations within a specific geographic area. Both TOs and AOs can use joint airpower within a specified geographic area to achieve the theater of war campaign objectives. However, the diagram illustrating a sample theater area organization shows a geographically defined air area of operations (AO AIR) that

controlled by an air component commander. 58 AFSC PUB 2 establishes a designated geographic region that uses airpower as the primary military means to support theater campaign plans.

In November 1992, the Chairman of the Joint Chiefs of Staff, General Colin L. Powell published a memorandum addressing joint operational concepts that specifically support air occupation. The concept paper supplements the joint concepts discussed in Joint Pub 1, Joint Warfare of the U.S Armed Forces which was published before the Persian Gulf War. The JCS concept paper provides a baseline for developing and revising joint doctrine after the Persian Gulf War. ⁵⁹

A key term addressed in the joint concept paper is interdiction. "The purpose of interdiction is to divert, delay, disrupt or destroy the enemy's surface or subsurface military potential before it is used against friendly forces." When discussing interdiction, detailed reference is made to the specific types of forces capable of interdiction. The list includes fighter or attack aircraft and bombers; ships and submarines; conventional airborne, air assault, or other ground maneuver forces; special operations forces; surface—to—surface, subsurface—to—surface,... rockets...attack helicopters...." In effect, this list includes all service assets as capable of conducting

interdiction operations.

The concept paper also discusses command and control of interdiction operations. It says, "joint force commanders may choose to employ interdiction as the principal means to achieve the intended objective (with other components supporting the component leading the interdiction effort)." Additionally, each service can support or be supported by the other services. Historically, the Air Force is viewed as a supporting service for the maritime and land components. 12 This change in joint doctrine describes the evolving role of all services in contributing to interdiction operations within concepts like air occupation.

Joint campaign planning doctrine does provide a way to designate airpower regions within a theater of war to achieve the strategic and operational ends. Using airpower asymmetrically within this area, is a way of applying joint airpower to achieve strategic and operational effects. The JCS concept paper thus advances interdiction operations as an independent way to achieve operational ends.

NO-FLY-ZONES IN IRAQ

In the aftermath of the Persian Gulf War, U.S. and coalition forces are still involved in conflict--a

limited airpower war. The limited joint military operations, conducted by coalition Naval and Air Force forces, represent an application of air occupation as an operational concept. These operations apply the advantages of airpower asymmetrically over portions of Iraq in a limited way to achieve the desired military objectives. These objectives are derived from the resolutions imposed by the United Nations on Iraq after the war. The limited airpower interdiction operations conducted over portions of Iraq reflect joint campaign planning doctrine and validate the use of air occupation as a operational concept.

Implementation of the no-fly zones in northern and southern Iraq after DESERT STORM are enforcing the U.N. resolutions. Operation PROVIDE COMFORT began immediately after DESERT STORM and Operation SOUTHERN WATCH began on 27 August 1992. Both operations use coalition joint airpower asymmetrically to force Iraq to comply with the U.N. resolutions. The designated geographic areas subjected to air occupation include portions of northern and southern Iraq above the 36th and below the 32nd parallels. 63

Two key U.N. resolutions are being enforced by joint coalition airpower over Iraq. The first is to stop Iraqi persecution of the Kurdish people in the north and the Shiites in the south. The second is to eliminate Iraqi

nuclear, chemical, and biological weapons of mass destruction. These two strategic objectives are translated into military strategic and operational objectives. Coalition forces are using their airpower means as coercive leverage to force Iraqi to comply with U.N. resolutions.

The success of the coalition's efforts are relative. Despite the implementation of the northern and southern no-fly zones, Iraq has played a cat and mouse game to defy the U.N. resolutions. Iraqi defiance includes using aircraft to flirt with and fly into the no-fly zones, moving mobile radars within and near the no-fly zones to track coalition aircraft, using civilian dressed army forces to go into Kuwait to retrieve military hardware left after the war, and denying unconstrained access of the U.N. weapons inspection teams into Iraq. Iraq's actions indicate selective compliance with the U.N resolutions.

The coalition response to Iraqi transgressions have been measured—limited in nature. Coalition aircraft have engaged and destroyed Iraqi aircraft and radars sites threatening the northern and southern no-fly zones. In January 1993 Iraq refused entrance to U.N. inspection teams unless the coalition suspended the no-fly zone in the south. Coalition airpower took direct action on 16 January against a suspected nuclear weapons facility just

outside Baghdad. The following day, additional air strikes finished the mission. The attack was a measured response since the nuclear weapons facility was directly related to the U.N. weapons inspection teams mission of eliminating weapons of mass destruction. Coalition direct action response to Iraqi transgressions result in limited direct action to "spank" Iraq and Saddam Hussein. 66

The coalition airpower operations integrate all three aerospace technologies. As British Prime Minister John Major contends, the coalition has the technological capability to monitor the entire region from the air to ensure compliance with the U.N resolutions. When direct action is required to force compliance with the U.N. resolutions, all three types of aerospace technology are synchronized to attack key military targets within Iraq. Direct action capitalizes on precision guided munitions and exploits the air dimension over Iraq asymmetrically without the associated political and economic costs of using other military means.

The no-fly zones have moral implications for both the coalition and Iraq regarding the use of military means to achieve strategic objectives. First, due to the asymmetrical aerospace advantages possessed by the coalition, there is minimal risk to coalition pilots. Therefore, the potential loss of life and the associated

political and moral ramifications within the U.S. and its coalition partners are politically and morally viable. Additionally, the no-fly zones are having an indirect moral effect on the population in Iraq. Coalition attacks focus on the Iraqi political and military leadership and not the people of Iraq. When tensions escalate, the war-weary population reacts. Reaction includes buying and hoarding gas and food rations in anticipation of more war. No doubt the people of Iraq and Saddam Hussein remember the Persian Gulf War and the effects it created. Having a past frame of reference adds to the moral effect of air occupation on the people and leadership within Iraq. With time, the coercive effect of air occupation might erode the political hold of Saddam Hussein on the Iraqi population.

Using asymmetric means can produce a moral backlash. When U.S. Navy missiles attacked the suspected nuclear weapons facility on 16 January 1993, two years to the day of the beginning of the Persian Gulf War, the coalition response was mixed. Britain, Russia and some Arab nations called it an unnecessary use of force that was politically motivated by President Bush. The timing was bad since it coincided with the two year anniversary of the Persian Gulf War and was also too close to Presidentelect Clinton's inauguration. Although the attack focused on a military target, it caused moral problems

when one of the Navy missiles hit the AL Rashid hotel and killed two innocent civilians. 69

Air occupation operations in the no-fly zones, on the other hand, levels the operational and tactical playing field for the Kurds and the Shiites. Coalition airpower denies Iraq the use of its fixed and rotary wing aircraft by dominating airspace over Iraq. This retards Iraqi combined arms military operations by denying them the ability to integrate air and ground operations. At the tactical level, ground attacks from the Iraqi personnel and artillery still occur, but without the support of air support.

Air occupation creates coercive leverage that enables unarmed U.N weapons inspection teams to travel throughout Iraq under an air umbrella created by the asymmetrical application of airpower. The coercive effect of air occupation forces the Iraqi government to support U.N. inspection teams as they identify and destroy Iraqi nuclear, chemical, and biological capabilities. 71

The limited use of airpower to achieve strategic and operational objectives is occurring over Iraq. The threat and use of military airpower is a buttress that provides an umbrella protecting the operations of the U.N. inspection teams. Additionally, air occupation over the northern and southern regions of Iraq helps the Kurds

and Shiites by denying Iraq the use their airpower. The effects achieved to date are mixed since selective compliance of the U.N. sanctions by Iraq still occurs, but the alternative of using large ground forces to enforce full compliance with the U.N. resolutions is politically, economically and morally unthinkable.

CONCLUSION

NATO, potential coalition, and U.S. militaries are attempting to come to grips with the post Cold War era. New and diverse threats require new ways to apply military means to achieve strategic goals and protect strategic interests. Like any institution confronted with change, NATO and U.S. military forces, and the doctrines for applying force, must adapt in response to the changing world political environments. declining force structures, the U.S. military needs innovative ways to use its reduced strength in a monopolar world. Air occupation is a new way of thinking about applying limited military means. Conceptually, air occupation applies advanced aerospace technology asymmetrically, a U.S. strength, to achieve strategic objectives.

As NATO and the U.S. continue to evolve doctrine and force structure in the wake of the Cold War, the

requirement to respond rapidly to regional crisis is critical. Rapid projection of potent military means to a region can be accomplished by joint airpower. Once there, joint and campaign planning doctrine provide a framework for using air occupation as an operational concept to achieve the operational objectives of campaign planning. These objectives may be suitable to many likely situations in the post Cold War era.

Airpower operating in the relative friction free air dimension offers many advantages. It avoids many of the political, social, economic and moral limitations and risks when compared to committing large conventional ground forces. Controlling the air space over a region can produce strategic and operational effects. These effects can support conventional surface forces or serve as a buttress for political efforts that operate under a continuous threat imposed by a coercive air umbrella.

Air occupation is suitable to Clausewitz's limited war paradigm. Using airpower asymmetrically, air occupation provides limited application of military means to achieve significant effects. Politicians and campaign planners balance the ends, ways, and means to ensure the desired strategic objectives are possible and acceptable with the limited effects attainable with air occupation.

As history demonstrates, technology is not a panacea for application in every situation. The British and the

contemporary use of airpower in the Persian Gulf offer examples of applying airpower asymmetrically to achieve limited political ends. Air occupation has continued utility in a limited war context for the future.

As military and service components seek new ways of applying military means asymmetrically, Clausewitz' paradigm of limited war mitigates against using large conventional ground forces. Operating in the air dimension avoids many of the risks and costs of using ground forces. Air occupation is a way to control an area in space and time to create a situation conducive for political intervention. Additionally it can gain time for deployment of ground forces for their combat role or their new role as peacemakers, or peace enforcers. Air occupation is a doctrinally viable tool in the campaign planners tool box for using joint airpower--within a limited war context. Political and military leaders and operational campaign planners must select the proper tool to solve each unique challenge in the post Cold War era.

ENDNOTES

- 1. Col John A. Warden, USAF, Lecture on 15 December 1992 to the School of Advanced Military Studies.
- 2. Norman H. Schwartzkoph, GEN USA (RET). <u>It Doesn't Take a Hero</u>. (New York: Bantam Books, 1992), 318.
- 3. U.S. Air Force, Air Force Manual 1-1, <u>Basic Aerospace Doctrine</u> of the <u>United States Air Force Vol I</u>, (Washington: Department of the Air Force, 1992), 5.
- 4. Michael Howard, <u>Clausewitz</u>, (New York: Oxford University Press, 1983), 49.
- 5. Ibid., 39.
- 6. Ibid., 49.
- 7. Ibid., 42-43.
- 8. Carl von Clausewitz, On War, translated by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1984), 610.
- 9. Howard, 37-38.
- 10. General Colin L. Powell USA, "U.S. Forces: Challenges Ahead", Foreign Affairs, Winter 1992-1993, 33.
- 11. Ibid., 37.
- 12. Howard, 49.
- 13. National Security Strategy of the United States, (Washington D.C.: The White House, 1993), ii.
- 14. U.S. Army, <u>Field Manual 100-5 Operations</u>, (Washington D.C.: Department of the Army, 1993), 5-2.
- 15. Harry Summers, Lecture given to the School of Advanced Military Studies on 1 September 1992.
- 16. Jean de Bloch, <u>The Future of War</u>, (Boston: Doubleday and McClure Company, 1899), xiii-lvii.
- 17. Max Hastings and Simon Jenkins, <u>The Battle for the Falklands</u>, (London and New York: W.W. Norton and Company, 1983), 327.
- 18. Sir James Eberle, "The End of NATO", Speech reprinted in SAMS Course Three Part IV readings, 126-127.

- 19. Powell, "U.S. Forces: Challenges Ahead", 37.
- 20. Joint Chiefs of Staff, <u>Publication One</u>, (Washington, D.C., November 1991), 59-61.
- 21. Air Force Manual 1-1 Vol I, 5-6.
- 22. Gary L. Guertner, "NATO Strategy in a New World Order", Reprinted in SAMS Course Three Part IV readings, 121.
- 23. Ibid., 116.
- 24. John A. Warden, COL USAF. Telephonic interviews conducted by author on 10 and 17 February.
- 25. Ibid.,
- 26. Ibid,.
- 27. Ibid...
- 28. Mark Clodfelter, "Of Demons Storms and Thunder: A Preliminary Look at Vietnam's Impact on the Persian Gulf Air Campaign", Airpower Journal, Winter 1991, 26.
- 29. John A. Warden, COL USAF, 15 December 1992 lecture.
- 30. Ibid.,
- 31. Warden interviews.
- 32. Ibid.,
- 33. General Colin L. Powell, USA, Television interview on CSPAN 12 February 1993.
- 34. Bob Woodward, The Commanders, (New York: Simon and Schuster, 1991), 146-153.
- 35. Powell, CSPAN interview.
- 36. Philip Anthony Towle, <u>Pilots and Rebels</u>, (United Kingdom: Brassey's, 1989), 9.
- 37. Ibid., 2.
- 38. Ibid., 12.
- 39 Ibid., 13-17

- 40. Ibid., 12-13.
- 41. Ibid., 15.
- 42. Ibid., 16.
- 43. Ibid., 16.
- 44. Ibid., 16-17.
- 45. Ibid., 16.
- 46. Ibid., 17-18.
- 47. Ibid, 20-21.
- 48. Ibid., 19-20.
- 49. Ibid., 19.
- 50. Ibid., 2.
- 51. National Security Strategy of the United States, 13.
- 52. Armed Forces Staff College, <u>Service Warfighting Philosophy and Synchronization of Joint Forces</u>, <u>AFSC PUB 2</u>, (Norfolk Virginia: National Defense University, 1992), II-3-4.
- 53. William W. Mendel, COL USA and Floyd T. Banks, LTC USA, "Campaign Planning", (Carlisle Pennsylvania: Strategic Studies Institute, 1988), 8.
- 54. Joint Chiefs of Staff, <u>Doctrine for Joint Campaign Planning</u>, <u>Joint Pub 5-00.1</u>, (Washington D.C., 1992), III-12.
- 55. Mendel, 9.
- 56. Ibid., 14.
- 57. Ibid., 8.
- 58. AFSC PUB 2, II-3-16.
- 59. General Colin L. Powell, USA, Chairman of the Joint Chiefs of Staff. Memorandum, SUBJECT: A Doctrinal Statement of Selected Joint Operational Concepts. Dated 23 November, 1992, i.
- 60. Ibid., 14.
- 61. Ibid., 14-15.
- 62. Ibid., 1.

- 63. Moore, Bernie MAJ USAF. Member of the Pentagon Air Staff. Telephonic interview conducted by author on 10 February 1993.
- 64. Reuters World Service. Dateline Washington. White House press statement by Marlin Fitzwater on 17 January 1993, 15:08 ET.
- 65. The Associated Press. Dateline Washington. 7 January 1993, 16:29 ET.
- 66. North american News Report. Dateline Washington. 17 January 1993, 15:06 ET.
- 67. The Associated Press. Dateline London. Press statement by Prime Minister John Major. 19 August 1992, 23:30 ET.
- 68. The Associated Press. Dateline Baghdad. 28 August 1992, 12:46 ET.
- 69. Reuters World Service. Dateline Washington. 19 January 1993, 22:03 ET.
- 70. The Associated Press. Dateline Washington. Press statement by Rear Admiral Michael Cramer, Director for Intelligence the Joint Staff during Pentagon news conference. 26 August 1992, 21:30 ET.
- 71. North American News Report. Dateline Baghdad. 23 January 1993, 00:08 ET.

BIBLIOGRAPHY

GOVERNMENT DOCUMENTS

- Armed Forces Staff College. <u>Service Warfighting Philosophy and Synchronization of Joint Forces, AFSC PUB 2</u>. National Defense University, Norfolk Virginia, August 1992.
- Joint Chiefs of Staff (JCS). <u>Doctrine for Joint Operations</u>, <u>JCS</u>
 <u>Pub 3-0</u>, Washington D.C., 1989.
- Joint Chiefs of Staff (JCS). <u>Doctrine for Joint Campaign Planning</u>, <u>Joint Pub 5-00.1</u>, Washington D.C., 1992.
- Joint Chiefs of Staff (JCS). <u>Joint Warfare of the U.S. Armed Forces, JCS Pub 1</u>. Washington D.C., 1991.
- National Security Strategy of the United States, The White House, Washington D.C., January 1993.
- U.S. Army. FM 100-5, Operations (Draft), Washington, D.C.: Department of the Army, TBP.
- U.S. Air Force. Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force--Volumes I and II, Headquarters Department of the Air Force, Washington D.C., March 1992.

BOOKS

- Bellamy, Christopher. <u>The Evolution of Modern Land Warfare</u>. London: Routledge, 1990.
- Blackwell, James. <u>Thunder in the Desert</u>. New York: Bantam Books, 1991.
- Bloch, Jean de. The Future of War. Boston: Doubleday and McClure Company, 1899.
- Clausewitz, Carl von. On War. Edited and translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.
- Douhet, Giulio. The Command of the Air. Washington, D.C. Office of Air Force History, 1983.
- Kohn Richard H. and Joseph P. Haraham. <u>Condensed Analysis of the Ninth Air Force in the European Theater of War.</u> USAF Warrior Studies Office of Air Force History; Washington D.C., 1984.
- Hastings, Max and Simon Jenkins. The Battle for the Falklands. New York & London: W.W. Norton and Company, 1983.

- Howard Michael. <u>Clausewitz</u>. New York: Oxford University press, 1985.
- Rosen, Stephen P. <u>Winning the Next War</u>. Ithica, NY: Cornell University Press, 1991.
- Schwartzkopf, H. Norman. <u>It Doesn't Take a Hero</u>. New York: Bantam Books, 1992.
- Towle, Philip Anthony. <u>Pilots and Rebels</u>. Brassey's: United Kingdom, 1989.
- Warden, John A. COL USAF, <u>The Air Campaign</u>. Washington D.C.: National Defense University Press Fort Lesley J. McNair.
- Woodward, Bob. The Commanders. Simon & Schuster: New York, 1991.

ARTICLES

- Bingham, Price T., LTC USAF, "Air Power in Desert Storm and the Need for Doctrinal Change", <u>Airpower Journal</u>, Winter 1991, 33-46.
- Clodfelter, Mark. "Of Demons Storms and Thunder: A Preliminary Look at Vietnam's Impact on the Persian Gulf Air Campaign", Airpower Journal, Winter 1991, 17-33.
- Drew, Dennis M., COL (RET) USAF, "Desert Storm as a Symbol: Implications of the Air War in the Desert", <u>Airpower Journal</u>, Fall 1992, 4-10.
- Eberle, Sir James, "The End of NATO", Speech reprinted in SAMS Course Three Part IV readings, 126-130.
- Furr, William F., LTC USAF, "Joint Doctrine: Progress, Prospects, and Problems", <u>Airpower Journal</u>, Fall 1991, 36-46.
- Grossman, Larry, "COL John A. Warden III", Government Executive, February 1992, 46.
- Guertner, Gary L., "NATO Strategy in a New World Order", Reprinted in SAMS Course Three Part IV readings, 96-125.
- Hollis, Patricia Slayden. "The Korean Theater--One-of-a-Kind", Field Artillery Journal, February 1993, 7-10.
- Meilinger, Philip S., LTC USAF, The Air Force in the Twenty-First Century: Challenge and Response, <u>Airpower Journal</u>, Winter 1990, 34-51.

- Pivarski, Carl, MAJ USAF. "Dangerous Doctrine", Article accepted for publication in Military Review.
- Powell, Colin L., GEN USA, "U.S. Forces: Challenges Ahead", <u>Foreign</u> Affairs, Winter 1992-1993, 32-45.

UNPUBLISHED DISSERTATIONS AND THESIS PAPERS

- Clodfelter, M.A. <u>Air Power and Limited War: An Analysis of the Air Campaign Against North Vietnam as Instruments of National Policy</u>, doctoral Thesis, Air Force Institute of Technology, Wright-Patterson AFB, OH, 1987.
- Mendel, William T. COL and Floyd T. Banks LTC. <u>Campaign Planning</u>, Strategic Studies Institute U.S. Army War College, Carlisle Barracks, PA, January 1988.
- Lofgren, D.J. <u>Peacekeeping and the Army: Where Are WE</u>, Study Project, U.S. Army War College, Carlisle Barracks, PA, 23 Mar 90.
- Peters, J.E. Shaping the U.S. Military for the Global Security Environment of the Year 2000, Doctoral Thesis, Georgetown University, Washington, D.C., 19 Nov 90.

SPEECHES AND LECTURES

- Summers, Harry. Lecture to the School of Advanced Military Studies on 1 September 1992.
- Warden, John A., COL USAF, Lecture to the School of Advanced Military Studies, 15 Dec 1992.

INTERVIEWS

- Moore, Bernie. MAJ USAF. Pentagon Air Staff. Telephonic interview conducted by author on 9 Feb 1993.
- Pivarsky, Carl R., MAJ (P) USAF, Air Force Section Command and General Staff College, interview conducted by author on 25 Jan 1993.
- Smith, Thomas, COL USAF, Pentagon Air Staff. Telephonic interview conducted by author on 9 February 1993.
- Warden, John A., COL USAF. Director of the Air Staff College, Maxwell Air Force Base, AL. Telephonic interviews conducted by author on 10 and 17 February 1993.

MEMORANDUMS

Colin L. Powell, GEN USA (CJCS), SUBJECT: A Doctrinal Statement of Selected Joint Operational Concepts, 23 November, 1992.

TV PROGRAMS

"Service Roles and Missions" CSPAN telecast and interview with Gen Colin L. Powell. 12 February 1993.

PRESS RELEASES

- North American News Report. Press releases on 17 January 1993. 15:06 ET and 23 January 1993, 00:08 ET.
- Reuters world Service. Press releases on 17 January 1993, 15:28 ET. and 19 January, 22:03 ET.
- The Associated press. Press releases on 19 August 1992, 23:30 ET.; 26 August 1992, 21:30 ET.; 28 August 1992, 12:46 ET. and 7 January 1993, 16:29 ET.